

Dr. Wei Xu

Curriculum Vitae

Wei Xu, Ph.D.

Department of Life Sciences, College of Science and Engineering

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(a) Professional Qualifications

Tianjin Agricultural College (China)	Aquaculture	B.S.,	2001
Institute of Oceanology, Chinese Academy of Sciences	Marine Biology	M.S.,	2004
Michigan State University, College of Veterinary Medicine	Pathology	Ph.D.,	2009
Northwestern University	Postdoc fellow		2010-2014

(b) Appointments

2018 – Present. Assistant Professor, Texas A&M University, Corpus Christi

2015 – 2018. Assistant Professor, Louisiana State University

(c) Research Grants & Awards

i. Awarded at TAMU-CC

National Science Foundation, “CAREER: Alterations in Marine Bivalve Shell Formation by Environmental Stress” PI: 8/1/2021-7/31/2026. \$809,202

National Science Foundation, “Collaborative: INFEWS: U.S.-China: Synergistic Effects of Petroleum Production and Ocean Environmental Changes on Oyster Health.” Lead PI: 8/1/2019 – 7/31/2023. \$499,875 (\$208,087 Xu portion).

National Institute of Health, “Environmental effects on dermatotoxicities of polycyclic aromatic hydrocarbons.” PI: 9/14/2019 – 8/31/2022. \$400,541.

Department of Defense, “Understanding roles of flow, surface, and microbe phenotype on formation and 3D architecture of shear resistant biofilms with integrated microfluidics and mesoscale experimentations.” Co-PI: 4/1/2020 – 3/31/2023. \$658,884 (\$131,777 Xu portion).

Cancer Prevention and Research Institute of Texas, “High-throughput non-destructive enumeration and characterization of CTCs in whole blood by a thin film “tactile” microfluidics and holographic interferometry.” Co-PI: 9/1/2020 – 8/31/2022. \$247,703 (\$74,311 Xu portion).

Harte Research Institute Fellow, PI: 5/1/2021 – 4/30/2023. \$14,000.

Texas A&M University – Corpus Christi Research Enhancement Grant, “Establishment of Zebrafish Embryo Model for the Evaluation of Fungicide Phototoxicities.” PI: 12/1/2018 – 11/30/2019. \$5,000.

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Texas A&M University – Corpus Christi Research Equipment and Infrastructure Grant, “Establishing a Platform for Fundamental Protein Analyses with UVP ChemStudio Bioimaging System.” PI: 2/1/2019. \$20,000.

Texas A&M University – Corpus Christi Innovation Seed Grant, “Development of a nanotechnology-based system for the separation of nano- and microscale plastic particles from biological and environmental samples.” PI: 6/1/2020 –8/31/2020. \$9,555.

Texas A&M University – Corpus Christi Postdoc Fellowship, “Environmental effects on Dermatotoxicities of Polycyclic Aromatic Hydrocarbons” PI: 9/1/2020-8/31/2021. \$30,000

Texas A&M University – Corpus Christi Research Equipment and Infrastructure Grant, “Acquisition of a Cryotome for Fluorescent Imaging.” PI: 3/1/2021-8/31/2021. \$19,650.

Texas A&M University – Texas Comprehensive Research Development Award, “Evaluation of Species’ Use of Oyster Reefs along the Gulf Coast using Environmental DNA techniques” PI: 9/1/2021-8/31/2022. \$25,000.

Texas A&M University – Corpus Christi Innovation Seed Grant, “Development of a novel, rare earth free MRI contrast agent with enhanced imaging and biosafety.” PI: 3/1/2022 – 8/31/2022. \$10,000.

ii. Awarded at LSU

Louisiana Sea Grant. “Impacts of marine bacterial biofilm dynamics to the development of oyster larvae under the stress of ocean acidification.” PI: 2/1/2018 – 1/31/2020. \$128,000.

Louisiana Campuses Research Initiative, “Establishing a platform to discriminate aggressive prostate cancer from indolent cancer and for anti-cancer drug discovery.” Co-PI: 7/1/2015 – 6/30/2016. \$65,000 (\$32,500 Xu portion).

LSU Leveraging Innovation for Technology Transfer, “Development of commercial prebiotics for fish aquaculture.” PI: 6/15/2017 – 6/14/2018. \$35,000.

(d) Publications (#Corresponding authors, *Graduate student authors, †Undergraduate student authors, ‡Postdoctoral authors, §Visiting scholars)

1. **Wei Xu[#]**, Charles Greg Lutz, Christopher M. Taylor, and Miriam Contin Ortega. Improvement of Fish Growth and Metabolism by Oligosaccharide Prebiotic Supplement. 2022. *Front Physiol.* Under review.
2. Leisha Martin[‡], Jian Sheng, Nattamai Bhuvanesh, Mackenzie Merrill^{*}, Alan Hernandez[†], Molly Brzezinski[†], Nin Gan^{*}, Maryam Jalali-Mousavi, and **Wei Xu[#]**. Polystyrene Encapsulated ZnO Nanoparticles with Unfunctionalized Surfaces for Nano-Bio Interaction Studies. 2022. *MRS Adv.* Under review.
3. Leisha Martin[‡], Nin Gan^{*}, Erica Wang, Mackenzie Merrill^{*}, and **Wei Xu[#]**. Materials, surfaces, and interfacial phenomena in nanoplastics toxicology research. 2021. *Environ Pollut.* 292(B): 11842. PMID: 34748888.
4. Nin Gan^{*}, Leisha Martin[‡], **Wei Xu[#]**. Impact of Polycyclic Aromatic Hydrocarbon Accumulation on Oyster Health. 2021. *Front Physiol.* 12:734463. doi: 10.3389/fphys.2021.734463.

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5. Yin Liu, Jiao Wang, Jian Zhang, Sandra Marbach[†], **Wei Xu**, and Lin Zhu. Targeting Tumor-Associated Macrophages by MMP2-Sensitive Apoptotic Body-Mimicking Nanoparticles. 2020. *ACS Appl Mater Interfaces*. 12: 52402-52414. PMID: 33169982.
6. **Wei Xu**[#], Emily N. Vebrosky, and Kevin L. Armbrust. Potential Toxic Effects of Chlorothalonil Degradation Product on Human Skin Health. 2020. *J Hazard Mater*. 394: 122575. doi: 10.1016/j.jhazmat.2020.122575.
7. **Wei Xu**[#], Elodi Dielubanza, Amanda Maisel, Kai P. Leung, Thomas A. Mustoe, Seok Jong Hong, Robert D. Galiano. Staphylococcus aureus Impairs Cutaneous Wound Healing by Activating the Expression of a Gap Junction Protein, Connexin-43 in Keratinocytes. 2020. *Cell Mol Life Sci*. 78: 935–947. doi: 10.1007/s00018-020-03545-4.
8. Andrea Bonisoli-Alquati, **Wei Xu**, Philip C. Stouffer, and Sabrina S. Taylor. Transcriptome analysis indicates a broad range of toxic effects of Deepwater Horizon oil on Seaside Sparrows. 2019. *Sci Total Environ*. 720: 137583. doi: 10.1016/j.scitotenv.2020.137583.
9. Jerome F. La Peyre, Sandra M. Casas, Mackenzie Richards, **Wei Xu**, Qinggang Xue. Testing plasma subtilisin inhibitory activity as a selective marker for dermo resistance in eastern oysters. 2019. *Dis Aquat Organ*. 133(2): 127-139. PMID: 31019137.
10. **Wei Xu**[#], Emily N. Vebrosky, and Kevin L. Armbrust. Potential risk to human skin cells from exposure to dicloran photodegradation products in water. 2018. *Environ Int*. 121 (1): 861-870. PMID: 30343185.
11. Mackenzie Richards*, **Wei Xu**[#], Amy Mallozzi, Reagan M. Errera, and John Supan, Production of Calcium-Binding Proteins in *Crassostrea virginica* in response to Increased Environmental CO₂ Concentration. June 2018. *Front Mar Sci*. 5: 203. DOI: 10.3389/fmars.2018.00203.
12. **Wei Xu**[#], Emily N. Vebrosky, Mackenzie L. Richards*, and Kevin L. Armbrust. Evaluation of Dicloran Phototoxicity using Primary Cardiomyocyte Culture from *Crassostrea virginica*. 2018. *Sci Total Environ*. 628–629: 1-10. PMID: 29432924.
13. **Wei Xu**[#], Brittney A. Foster, Mackenzie Richards, Kenneth R Bondioli, Girish Shah, and Christopher C. Green. Characterization of Prostate Cancer Cell Progression in Zebrafish Xenograft Model. 2018. *Int J Oncol*. 52: 252-260. PMID: 29115578.
14. Shuxia Xue[§], Jinsheng Sun, **Wei Xu**, Identification and Detection of the Pathogenic Bacteria Responsible for Swollen Abdomen Disease in Cultured Turbot, *Scophthalmus maximus*, and Flounder, *Paralichthys olivaceus*. 2018. *J World Aquacult Soc*. 49 (3): 540-550. doi: 10.1111/jwas.12435.
15. Shuxia Xue[§], **Wei Xu**, Junli Wei, Jinsheng Sun. Impact of environmental bacterial communities on fish health in marine recirculating aquaculture systems. 2017. *Vet Microbiol*. 203: 34-39. PMID: 28619164
16. Yina Shao, Chenghua Li[§], **Wei Xu**, Pengjuan Zhang, Weiwei Zhang and Xuelin Zhao. miR-31 Links Lipid Metabolism and Cell Apoptosis in Bacteria-Challenged *Apostichopus japonicus* via Targeting CTRP9. 2017. *Front Immunol*. 8: 263. PMID: 28348559.
17. Shanshan Zhang, Weiwei Zhang, Ningning Liu, Tongxiang Song, Huijie Liu, Xuelin Zhao, **Wei Xu**, Chenghua Li[§]: Indole reduces the expression of virulence related genes in Vibrio

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- splendidus pathogenic to sea cucumber *Apostichopus japonicus*. 2017. *Microb Pathog.* 111: 168-173. PMID: 28867630.
18. Miao Lv, Huahui Chen, Yina Shao, Chenghua Li[§], **Wei Xu**, Weiwei Zhang, Xuelin Zhao, Xuemei Duan: miR-137 modulates coelomocyte apoptosis by targeting 14-3-3 ζ in the sea cucumber *Apostichopus japonicus*. 2017. *Dev Comp Immunol.* 67: 86-96. PMID: 27832949.
 19. Huahui Chen, Miao Lv, Zhimeng Lv, Chenghua Li[§], **Wei Xu**, Weiwei Zhang, Xuelin Zhao, Xuemei Duan, Chunhua Jin: Molecular cloning and functional characterization of cathepsin B from the sea cucumber *Apostichopus japonicus*. 2017. *Fish Shellfish Immunol.* 60: 447-457. PMID: 27847342.
 20. Chenghua Li[§], Mengru Zhao, Chi Zhang, Weiwei Zhang, Xuelin Zhao, Xuemei Duan, and **Wei Xu**[#]: miR210 modulates respiratory burst in *Apostichopus japonicus* coelomocytes via targeting Toll-like receptor, 2016. *Dev Comp Immunol.* 65:377-81. PMID: 27545641.
 21. Aimei Zhong, **Wei Xu**, Jingling Zhao, Ping Xie, Shengxian Jia, Jiaming Sun, Robert D. Galiano, Thomas A. Mustoe, and Seok Jong Hong: S100A8 and S100A9 are induced by decreased hydration in the epidermis and promote fibroblast activation and fibrosis in the dermis, 2016 *Am J Pathol.* 186 (1):109-122. PMID: 26597884 (**Co-first author**).
 22. Yina Shao, Chenghua Li[§], Weiwei Zhang, **Wei Xu**, Xuemei Duan, Ye Li, Qiongfen Qiu, and Chunhua Jin: Cloning and comparative analysis the proximal promoter activities of arginase and agmatinase genes in *Apostichopus japonicus*, 2016 *Dev Comp Immunol.* 65:299-308. PMID: 27497871.
 23. Ping Xie, Shengxian Jia, Ross Tye, **Wei Xu**, Aimei Zhong, Seok Jong Hong, Robert D. Galiano, and Thomas A. Mustoe: Topical Administration of Oxygenated Hemoglobin Improved Wound Healing in an Ischemic Rabbit Ear Model. 2016 *Plast Reconstr Surg.* 137 (2):534-43. PMID: 26818288.
 24. Eugene Park, Sarah A. Long, Akhil K. Seth, Matthew Geringer, **Wei Xu**, Claudia Chavez-Munoz, Kai Leung, Seok Jong Hong, Robert D. Galiano, Thomas A. Mustoe: The use of desiccation to treat *Staphylococcus aureus* biofilm-infected wounds. 2016, *Wound Repair Regen.* 24(2):394-401. PMID: 26519217.
 25. **Wei Xu**, Seok Jong Hong, Aimei Zhong, Ping Xie, Shengxian Jia, Zhong Xie, Michael Zeitchek, Solmaz Niknam-Bienia, Jingling Zhao, D. Marshall. Porterfield, D. James Surmeier, Kai P. Leung, Robert D. Galiano, Thomas A. Mustoe: Sodium channel Na_x is a regulator in epithelial sodium homeostasis, 2015 *Sci Transl Med.* 7(312): 312ra177. PMID: 26537257.
 26. **Wei Xu**, Seok Jong Hong, Michael Zeitchek, Garry Cooper, Shengxian Jia, Ping Xie, Hannan A. Qureshia, Aimei Zhong, Marshall D. Porterfield, Robert D. Galiano, D. James Surmeier, Thomas A. Mustoe: Hydration status regulates sodium flux and inflammatory pathways through epithelial sodium channel (ENaC) in the skin, 2015 *J. Invest.Dermatol.* 135 (3):796-806. PMID: 25371970.
 27. Matthias D. Hofer, Earl Y. Cheng, Matthew I. Bury, **Wei Xu**, Seok Jong Hong, William E. Kaplan, Arun K. Sharma, Androgen Supplementation in Rats Increases the Inflammatory Response and Prolongs Urethral Healing. 2015, *Urology.* 85 (3): 691-697. PMID: 25733291.

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28. **Wei Xu**, Shengxian Jia, Ping Xie, Aimei Zhong, Robert D. Galiano, Thomas A. Mustoe, Seok Jong Hong: The Expression of Proinflammatory Genes in Epidermal Keratinocytes Is Regulated by Hydration Status. 2014, *J Invest Dermatol*. 134 (4): 1044-1055. PMID: 24226202.
29. Seok Jong Hong, Eugene Park, **Wei Xu**, Shengxian Jia, Robert D. Galiano, and Thomas A. Mustoe: Response of human mature adipocytes to hypoxia-reoxygenation. 2014, *Cytotherapy*, 16(12):1656-65. PMID:25231891.
30. Kai P. Leung; Peter D'Arpa; Akhil K. Seth; Matthew R. Geringer; Marti Jett; **Wei Xu**; Seok J. Hong; Robert D. Galiano; Tsute Chen; and Thomas A. Mustoe: Dermal wound transcriptomic responses to Infection with *Pseudomonas aeruginosa* versus *Klebsiella pneumoniae* in a rabbit ear wound model. 2014, *BMC Clin Pathol*. 14:20. PMID: 25035691.
31. Matthias D. Hofer, Earl Y. Cheng, Matthey I. Bury, Eugene Park, **Wei Xu**, Seok Jong Hong, William E. Kaplan, Arun K. Sharma. Analysis of primary urethral wound healing in the rat. 2014, *Urology*. 84 (1): 246.e1-7. PMID: 24976234.
32. Claudia Chavez-Munoz, Khang Nguyen, **Wei Xu**, Seok-Jong Hong, Thomas A. Mustoe, and Robert D. Galiano: Transdifferentiation of Adipose-derived Stem Cells into Keratinocyte-like cells: Engineering a Stratified Epidermis. 2013, *Plos One*, 8(12): e80587. PMID: 24312483.
33. Seok Jong Hong, Sheng-Xian Jia, Ping Xie, **Wei Xu**, Kai Leung, Thomas Mustoe, and Robert Galiano: Topically Delivered Adipose Derived Stem Cells Show an Activated-Fibroblast Phenotype and Enhance Granulation Tissue Formation in Skin Wounds. 2013, *Plos One*, 8(1): e55640. PMID: 23383253.
34. **Wei Xu**, Seok Jong Hong, Shengxian Jia, Yanan Zhao, Robert Galiano, and Thomas Mustoe: Application of a partial thickness human ex vivo skin culture model in cutaneous wound healing study. 2012, *Lab Invest*, 92:584-599. PMID: 22231737.
35. Thomas Loch, Rakesh Kumar, **Wei Xu**, and Mohamed Faisal: Carnobacterium Maltaromaticum infections in Feral Oncorhynchus spp. (Family Salmonidae) in Michigan. 2011, *J Microbiol*. 49 (5): 703-713. PMID: 22068485
36. **Wei Xu** and Mohamed Faisal: Factorial microarray analysis of zebra mussel (*Dreissena polymorpha*: Dreissenidae, Bivalvia) adhesion. 2010. *BMC Genomics*. 11: 341-357. PMID: 20509938.
37. **Wei Xu** and Mohamed Faisal: Gene expression profiling during the byssogenesis of zebra mussel (*Dreissena polymorpha*). 2010. *Mol Genet Genomics*. 283 (4): 327-339. PMID: 20148265.
38. **Wei Xu** and Mohamed Faisal: Defensin of the zebra mussel (*Dreissena polymorpha*): molecular structure, in vitro expression, antimicrobial activity, and potential functions. 2010. *Mol Immunol*. 47(11-12):2138-2147. PMID: 20537393.
39. **Wei Xu** and Mohamed Faisal: Development of a cDNA microarray of zebra mussel (*Dreissena polymorpha*) foot and its use in understanding underwater adhesion. 2009. *Gene* 436 (1-2): 71-80. PMID: 19393183.
40. **Wei Xu** and Mohamed Faisal: Identification of the molecules involved in zebra mussel (*Dreissena polymorpha*) hemocytes host defense. 2009. *Comp Biochem Physiol B*. 154 (1): 143-149. PMID: 19482094.

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41. Lingling Wang, Linsheng Song, Jianmin Zhao, Limei Qiu, Huan Zhang, **Wei Xu**, Honglei Li, Chenghua Li, Longtao Wu, and Ximing Guo: Expressed sequence tags from the zhikong scallop (*Chlamys farreri*): discovery and annotation of host-defense genes. *Fish Shellfish Immunol.* 2009. 26(5):744-750. PMID: 19328855.
42. Ling Zhu, Linsheng Song, **Wei Xu**, and Peiyuan Qian: Identification of a C-type lectin from the bay scallop *Argopecten irradians*. 2009. *Mol Biol Rep.* 36(5):1167-1173. PMID: 18622759.
43. **Wei Xu** and Mohamed Faisal: Putative identification of expressed genes associated with attachment of zebra mussel (*Dreissena polymorpha*). 2008. *Biofouling* 24: 157-161. PMID: 18330781.
44. Thomas P. Loch, **Wei Xu**, Scott M. Fitzgerald, and Mohamed Faisal: Isolation of a *Carnobacterium maltaromaticum*-like bacterium from systemically infected Lake Whitefish (*Coregonus clupeaformis*). 2008. *FEMS Microb Lett.* 288 (1): 76-84. PMID: 18793198.
45. Ling Zhu, Linsheng Song, **Wei Xu**, and Peiyuan Qian: Molecular cloning and immune responsive expression of a novel C-type lectin gene from bay scallop *Argopecten irradians*. 2008. *Fish Shellfish Immunol.* 25 (3): 231-238. PMID: 18640058.
46. Ling Zhu, Linsheng Song, Yuze Mao, Jiangmin Zhao, Chenghua Li, and **Wei Xu**: A novel serine protease with clip domain from scallop *Chlamys farreri*. 2008. *Mol Biol Rep.* 35 (2): 257-264. PMID: 17484057.
47. Ling Zhu, Linsheng Song, Huan Zhang, Jianmin Zhao, Chenghua Li, and **Wei Xu**: Molecular cloning and responsive expression to injury stimulus of a defender against cell death 1 (DAD1) gene from bay scallops *Argopecten irradians*. 2008. *Mol Biol Rep.* 35 (2): 125-132. PMID: 17294251.
48. **Wei Xu** and Mohamed Faisal: Matrilin-like molecules produced by circulating hemocytes of the zebra mussel (*Dreissena polymorpha*) upon stimulation. 2007. *Dev Comp Immunol* 31: 1205-10. PMID: 17555814.
49. Ling Zhu, Linsheng Song, Jianmin Zhao, **Wei Xu**, and Yaqing Chang: Molecular cloning, characterization and expression of a serine protease with clip-domain homologue from scallop *Chlamys farreri*. 2007. *Fish Shellfish Immunol.* 22 (5): 556-566. PMID: 17046285.
50. Jianmin Zhao, Linsheng Song, Chenghua Li, Duojiao Ni, Longtao Wu, Ling Zhu, Hao Wang, and **Wei Xu**: Molecular cloning, expression of a big defensin gene from bay scallop *Argopecten irradians* and the antimicrobial activity of its recombinant protein. 2007. *Mol Immunol.* 44 (4): 360-368. PMID: 16597463.
51. Jianmin Zhao, Linsheng Song, Chenghua Li, Huibin Zou, Duojiao Ni, Wan Wang, and **Wei Xu**: Molecular cloning of an invertebrate goose-type lysozyme gene from *Chlamys farreri*, and lytic activity of the recombinant protein. 2007. *Mol Immunol.* 44 (6): 1198-1208. PMID: 16911829.
52. Huan Zhang, Linsheng Song, Chenghua Li, Jianmin Zhao, Hao Wang, Qiang Gao, **Wei Xu**: Molecular cloning and characterization of a thioester-containing protein from Zhikong scallop *Chlamys farreri*. 2007. *Mol Immunol.* 44 (14): 3492-3500. PMID: 17498803.

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53. Hao Wang, Linsheng Song, Chenghua Li, Jianmin Zhao, Huan Zhang, Duoqiao Ni, **Wei Xu**: Cloning and characterization of a novel C-type lectin from Zhikong scallop *Chlamys farreri*. 2007. *Mol Immunol*. 44 (5): 722-731. PMID: 16777225.
54. Limei Qiu, Linsheng Song, Yundong Yu, **Wei Xu**, Duoqiao Ni, Qingchun Zhang: Identification and characterization of a myeloid differentiation factor 88 (MyD88) cDNA from Zhikong scallop *Chlamys farreri*. 2007. *Fish Shellfish Immunol*. 23 (3): 614-623. PMID: 17383200.
55. Limei Qiu, Linsheng Song, **Wei Xu**, Duoqiao Ni, Yundong Yu: Molecular cloning and expression of a Toll receptor gene homologue from Zhikong Scallop, *Chlamys farreri*. 2007. *Fish Shellfish Immunol*. 22 (5): 451-466. PMID: 17158063.
56. Ling Zhu, Linsheng Song, Yaqing Chang, **Wei Xu**, Longtao Wu: Molecular cloning, characterization and expression of a novel serine proteinase inhibitor gene in bay scallops (*Argopecten irradians*, Lamarck 1819). 2006. *Fish Shellfish Immunol*. 20 (3): 320-331. PMID: 16005644.
57. Linsheng Song, Huibin Zou, Yaqing Chang, **Wei Xu**, Longtao Wu: The cDNA cloning and mRNA expression of a potential selenium-binding protein gene in the scallop *Chlamys farreri*. 2006. *Dev Comp Immunol*. 30 (3): 265-273. PMID: 15975653.
58. Linsheng Song, **Wei Xu**, Chenghua Li, Honglei Li, Longtao Wu, Jianhai Xiang, Ximing Guo: Development of expressed sequence tags from the bay scallop, *Argopecten irradians irradians*. 2006. *Mar Biotechnol (NY)*. 8 (2): 161-169. PMID: 16625419.
59. Linsheng Song, Longtao Wu, Duoqiao Ni, Yaqing Chang, **Wei Xu**, Kezhi Xing: The cDNA cloning and mRNA expression of heat shock protein 70 gene in the haemocytes of bay scallop (*Argopecten irradians*, Lamarck 1819) responding to bacteria challenge and naphthalin stress. 2006. *Fish Shellfish Immunol*. 21 (4): 335-345. PMID: 16530426.
60. Lingling Wang, Linsheng Song, Yaqing Chang, **Wei Xu**, Duoqiao Ni, Ximing Guo: A preliminary genetic map of Zhikong scallop (*Chlamys farreri* Jones et Preston 1904). 2005. *Aquacult Res*. 36 (7): 643-653. DOI: 10.1111/j.1365-2109.2005.01268.x.
61. Jianguo Su, Linsheng Song, **Wei Xu**, Longtao Wu, Honglei Li, Jianhai Xiang: cDNA cloning and mRNA expression of the lipopolysaccharide- and beta-1,3-glucan-binding protein gene from scallop *Chlamys farreri*. 2004. *Aquacult*. 239 (1-4): 69-80. DOI: 10.1016/j.aquaculture.2004.03.012.

(e) Conference Abstract (*Presenter; §Postdoc; †Graduate student; ‡Undergraduate student; ¶Visiting scholar)

1. Maryam Jalali-Mousavi*, Mohammad Ansari, Leisha Martin[§], **Wei Xu**, Jian Sheng. Microfluidic Investigations of Formation Shear Resistant (SR-) Biofilm in High Flow Shear. 34th Symposium on Naval Hydrodynamics. June 26 – July 1, 2022. Washington, DC. Accepted for oral presentation.
2. Leisha Martin*, §, Molly Brzezinski†, Kayla Simpson†, Wei Xu, Penetration of Nanoplastics through Skin Epithelium and the Potential Toxic Effects on Skin Cells. The Long Star Chapter of Society of Toxicology “2021” Meeting, January 13-14, 2022. College Station, TX.
3. Mackenzie Merrill*, † and Wei Xu. Accumulation of Micro and Nanoplastic Particles in *Biomphalaria Glabrata* (Mollusca, Gastropoda, Planorbidae) and the Subsequent Induction

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of Host Defense Responses. Society of Environmental Toxicology and Chemistry North America 42nd Annual Meeting. November 14-18, 2021. Virtual Event.

4. Molly Brzezinski*,† and Wei Xu. Potential Dermal Exposure Risk of Photodegraded Polycyclic Aromatic Hydrocarbons. Society of Environmental Toxicology and Chemistry North America 42nd Annual Meeting. November 14-18, 2021. Virtual Event.
5. Leisha Martin*.§, Jian Sheng, **Wei Xu**. Fluorescent polymeric nanoparticles with unfunctionalized, inert surfaces for nano-bio interaction studies. 2021 Materials Research Society Fall Meeting & Exhibit. November 29 – December 2, 2021. Boston, Massachusetts.
6. Jian Sheng*, Maryam Jalali, and **Wei Xu**. Simultaneous measurement of flow, rheology and structures of shear resistant biofilms in shear flows. 73rd Annual Meeting of the APS Division of Fluid Dynamics. November 22-24, 2021. Virtual Event.
7. **Wei Xu***, Leisha Martin, and Sandra Marbach. Assessment of Nanoplastic Skin Penetration Using 3D Human Skin Cell Cultures. SETAC North America 41th Annual Meeting, November 15-19, 2020, Virtual Event.
8. Sandra Marbach*.§ and **Wei Xu**. Assessment of the Toxic Effects of Nanoplastics on Zebrafish (*Danio rerio*) Embryonic Development. SETAC North America 41th Annual Meeting, November 15-19, 2020, Virtual Event.
9. Mackenzie Merrill*.§ and Wei Xu. The Toxic Effects of Nanoplastic Particles on *Biomphalaria Glabrata* Embryonic Development. SETAC North America 41th Annual Meeting, November 15-19, 2020, Virtual Event.
10. Sandra Marbach*.§ and **Wei Xu**. Host Response of Zebrafish Embryos to Nanoplastic Contamination. Microplastics Science Team Meeting, May 18, 2020, Port Aransas, TX.
11. Leisha Martin*.§ and **Wei Xu**. Superparamagnetic nano-powered separation of micro and nano plastics. Microplastics Science Team Meeting, May 18, 2020, Port Aransas, TX.
12. **Wei Xu***. Potential Skin Absorption and Penetration of Environmental Nanoplastic Particles. Microplastics Science Team Meeting, May 18, 2020, Port Aransas, TX.
13. Sandra Marbach*.§ and **Wei Xu**. The Toxic Effects of Nanoplastic Particles on Fish Embryonic Development. Society of Integrative and Comparative Biology Meeting, January 3-7, 2020, Austin, TX.
14. Sandra Marbach*.§ and **Wei Xu**. Host response of zebrafish embryos to nanoplastic contamination. Texas Zebrafish Conference, November 1-2, 2019, Houston, TX.
15. Emily N. Vebrosky, **Wei Xu**, Kevin L. Armbrust, Comparison of Ecologically and Economically Valued Aquatic Organisms in the Analysis of Fungicide Exposure. SETAC North America 39th Annual Meeting, November 4-8, 2018, Sacramento, CA.
16. Emily N. Vebrosky, **Wei Xu**, Kevin L. Armbrust, Responses to Hydroxychlorothalonil and Dicloran Exposure by *Menidia beryllina* in the Presence of Varying Salinities and Sunlight, SETAC North America 39th Annual Meeting, November 4-8, 2018, Sacramento, CA.
17. Emily N. Vebrosky, **Wei Xu**, Kevin L. Armbrust, Pesticide Impacts from Louisiana Rice Fields on the Health and Survival of Red Swamp Crayfish. SETAC North America 38th Annual Meeting, November 12-16, 2017, Minneapolis, MN.

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18. Emily N. Vebrosky, **Wei Xu**, Kevin L. Armbrust, Phototoxic Effects of Pesticides Including Dicloran to Juvenile Red Swamp Crayfish and Eastern Oyster. SETAC North America 38th Annual Meeting, November 12-16, 2017, Minneapolis, MN.
19. Mackenzie L. Richards^{*,†}, Courtney H. Healy[‡], Amy J. Mallozzi, Sandra Casas Liste, Jerome F. La Peyre, John Supan, Reagan M. Errera and **Wei Xu**, Molecular regulation of shell development in eastern oysters (*Crassostrea virginica*) in response to CO₂-related ocean acidification. American Fisheries Society: Louisiana Chapter. May 25-26, 2017. Thibodaux, LA.
20. **Wei Xu***, Mackenzie Richards, Amy Mallozzi, Greer Darden[‡], Reagan M. Errera, Illya Tietzel, and John Supan. Impact of Ocean Acidification on Bacterial Communities in Coastal Microbial Biofilms. World Aquaculture Society Meeting 2017. February 19-22, 2017 San Antonio, TX.
21. Mackenzie L. Richards^{*,†}, Courtney H. Healy[‡], Sara E. King[‡], Jeni L. Ewing[‡], Sandra Casas Liste, Jerome F. La Peyre, John E. Supan, and **Wei Xu**. The impact of CO₂ related ocean acidification on the molecular regulation of shell development in eastern oyster (*Crassostrea virginica*). World Aquaculture Society Meeting 2017. February 19-22, 2017 San Antonio, TX.
22. **Wei Xu***: Genomic adaptation of shellfish larval development and host defense to stress of ocean acidification. World Aquaculture Society Meeting 2016. February 23-26, 2016 Las Vegas, NV.
23. Mackenzie L. Richards^{*,†}, Sara E. King[‡], Sandra Casas Liste, Jerome F. La Peyre, John E. Supan, and **Wei Xu**. Molecular regulation of shell development of Eastern oyster (*Crassostrea virginica*) under the stress of ocean acidification. American Fisheries Society: Louisiana Chapter. May 25-26, 2016. Baton Rouge, LA.
24. **Wei Xu***, Elodi Dielubanza, Amenda Maisel, Aimei Zhong, Eugene Park, Khang T. Nguyen, Seok Jong Hong, Thomas A. Mustoe, and Robert D. Galiano: *Staphylococcus aureus* impairs cutaneous wound healing by inducing the expression of gap junction protein Connexin-43 in keratinocytes. The 24th Annual Meeting of the Wound Healing Society with the Symposium of Advanced Wound Care. April 23-26, 2014 Orlando, FL.
25. **Wei Xu***, Aimei Zhong, Adam Jakus, Shengxian Jia, Ping Xie, Claudia Chavez-Munoz, Seok Jong Hong, Robert D. Galiano, and Thomas A. Mustoe: Application of a Three Dimensional Human Keratinocyte-Fibroblast Cell Culture Model in the Study of Cutaneous Wound Healing. The 24th Annual Meeting of the Wound Healing Society with the Symposium of Advanced Wound Care. April 23-26, 2014 Orlando, FL.
26. **Wei Xu***, Seok Jong Hong, Shengxian Jia, Yanan Zhao, Robert Galiano, Thomas Mustoe: Hydration regulates gene expression profile of wounds in the rabbit ear and human skin culture model. 2011 Gordon Research Conference - Barrier Function of Mammalian Skin. August 7-12, 2011, Waterville Valley, NH.
27. **Wei Xu***, Seok Jong Hong, Shengxian Jia, Yanan Zhao, Robert Galiano, and Thomas Mustoe: Gene Expression Profile is Altered in Cutaneous Superficial Injury by Hydration. 2011 Gordon Research Conference and Seminar – Tissue Repair and Regeneration. June 4-10, 2011, New London, NH.
28. **Wei Xu***, Seok Jong Hong, Shengxian Jia, Yanan Zhao, Robert Galiano, and Thomas Mustoe: Application of an ex vivo Human Skin Culture in Cutaneous Wound Healing Study.

Dr. Wei Xu

Curriculum Vitae

The 21st Annual Meeting of the Wound Healing Society with the Symposium of Advanced Wound Care. April 14-17, 2011. Dallas, TX. (Poster).

29. **Wei Xu*** and Mohamed Faisal: The Antimicrobial Peptides In Zebra Mussel (*Dreissena Polymorpha*) Underwater Adhesion. 34th Eastern Fish Health Workshop, April 27 – May 1, 2009 at Lake Placid, NY. Charleston, SC.
30. **Wei Xu*** and Mohamed Faisal: A zebra mussel (*Dreissena polymorpha*) byssus gland cDNA microarray developed with ESTs from a suppression subtractive hybridization cDNA library. Experimental Biology 2008, April 5-9, 2008 at San Diego, CA. (Poster).
31. **Wei Xu*** and Mohamed Faisal: Antimicrobial peptides from the suppression subtractive hybridization cDNA library of zebra mussel (*Dreissena polymorpha*) byssus glands. 32nd Eastern Fish Health Workshop, June 18-21, 2007 at Gettysburg, PA.
32. **Wei Xu*** and Mohamed Faisal: A genomic approach to decipher multiple exocrine functions of the zebra mussel (*Dreissena polymorpha*) foot. 2nd International Symposium on Animal Functional Genomics. May 16-19, 2006 at Lansing, MI.
33. **Wei Xu*** and Mohamed Faisal: Putative identification of expressed genes associated with attachment of the zebra mussel (*Dreissena polymorpha*) using suppression subtractive hybridization cDNA library. 31st Eastern Fish Health Workshop, March 27-31, 2006 at Charleston, SC.

(f) Teaching & Mentoring

i. Teaching experience

RNR4037-Biology of Fishes (LSU)	Spring	2016
RNR2012-Natural Resource Measurement and GIS (LSU)	Fall	2017
BIOL3345-Cell Physiology	Spring	Even years
BIOL4301-Embryology (TAMU-CC, Fall every year)	Fall	Every year
BIMS4410/5410 Histology/Cells and Tissues	Spring	Odd years

ii. Graduate students advised (as the thesis/dissertation committee chair)

Mackenzie Richards, M.S.	LSU	Graduated	Dec 2017
Sandra Marbach, M.S.	TAMU-CC	Graduated	Aug 2021
Nin Gan, Ph.D.	TAMU-CC		Fall 2019 – current
Molly Brzezinski, M.S.	TAMU-CC		Fall 2020 – current
Mackenzie Merrill, M.S.	TAMU-CC		Fall 2020 – current
Kayla Simpson, M.S.	TAMU-CC		Fall 2021 – current
Chi Huang, Ph.D.	TAMU-CC		Fall 2021 – current

iii. Graduate student committee memberships

Prapanna Bhattarai, Ph.D.	TAMU	Fall 2021 – current
Bea DiBona, Ph. D.	TAMU-CC	Fall 2021 – current

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Neina Chapa, M.S.	TAMU-CC		Spring 2022 – current
Kaitlin Huerta, M.S.	TAMU-CC		Spring 2022 – current
Yue Liu, Ph.D.	LSU	Graduated	Dec 2017
Emily Vebrosky, Ph.D.	LSU	Graduated	Oct 2018

iv. Postdoctoral fellows supervised

Dr. Leisha Martin (Ph.D. 2019, University of New Mexico) 2020 – present

(g) Service

i. External

Panelist, National Science Foundation - Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR), 2017

Foundation for Food and Agriculture Research - Sustainable American Aquaculture Panel, 2017

National Institute of Health – Cancer Etiology – 2020

Ad hoc reviewer, National Natural Science Foundation of China – 2017

National Science Foundation - Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR), 2021

Associate Editor, Annuals of Medicine, 2020 – present

Frontiers in Genetics (Genomic Assay Technology), 2021 – present

Guest Associate Editor, Special Topic: The Physiological and Molecular Response of Aquatic Animals to Environmental Stresses (Frontiers in Physiology & Frontiers in Marine Science), 2020 - present

Editorial Board, International Journal of Oncology, 2017 – present

Journal of Marine Biology and Aquaculture, 2015 – present

Frontiers in Bioengineering and Biotechnology, 2021 – present

Manuscript Reviewer, Frequent reviewers for 20 peer reviewed journals, including 1) Molecular Immunology; 2) Fish & Shellfish Immunology; 3) Journal of Fish Biology; 4) Journal of World Aquaculture Society; 5) Microbial Pathogenesis; 6) Open Biology; 7) Invertebrate Survival Journal; 8) BMC Complementary and Alternative Medicine; 9) International Journal of Molecular Sciences; 10) Journal of Applied Aquaculture; 11) Microarray; 12) Frontiers in Immunology; 13) Frontiers in Physiology; 14) Frontiers in Genetics; 15) Frontiers in Pharmacology; 16) Frontiers in Bioengineering and Biotechnology; 17) Science of Total Environment; 18) Aquatic Toxicology; 19) Aquaculture; and 20) Marine Biotechnology

ii. University (TAMU-CC)

Committee member, Institutional Animal Care and Use Committee. 2021-Present

Dean of College of Sciences Searching Committee. 2021-Present

Dr. Wei Xu

Curriculum Vitae

Academic Integrity Committee of the University. 2020-2023

College of Science and Engineering: Steering Committee. 2020-2023

College of Science and Engineering Research Enhancement Committee.
2020-2022

Organizer, Booth of Department of Life Sciences at TAMU-CC Island Day, Spring 2020.
Coorganized with Dr. Sharon Derrick.

Presenter, Show case of Department of Life Sciences at TAMU-CC Island Day, Fall 2018.

Judge, Coastal Bend Regional Science Fair, Spring 2019.

iii. University (LSU)

Co-organizer, Aquaculture Research Station Exhibition for Agricultural Center AgMagic, Spring
2016

(h) Society membership

Society of Integrative and Comparative Biology

Society of Toxicology

Society of Environmental Toxicology and Chemistry